

Remarks

Claim 1 has been amended. Claims 2 and 12 - 28 have been cancelled. Claims 1 and 3 - 11 are pending. Claims 8, 9, and 11 were withdrawn as being drawn to a non-elected species.

Applicant mistakenly submitted that claim 11 was not readable upon the species of functionalized polyolefins, metal hydroxide, and potassium hydroxide. Clearly, claim 11 recites these elements. Applicant regrets the error and respectfully request reconsideration of the elected species.

Examination and reconsideration of the application as amended is requested.

§ 103 Rejections

Claims 1-6 and 10 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Tse et al. (U.S. Patent No. 5,227,426). The Patent Office submits that Tse et al. disclose a curable adhesive composition comprising an olefin polymer with pendent functional groups such as carboxyl or amide, and catalysts such as tetrabutyl phosphonium bromide, crown ethers, and/or tetrabutyl ammonium hydroxide. The Patent Office concludes that it would have been obvious to a person of ordinary skill in the art at the time the invention was made to select an effective combination of known catalysts as curing agents and use a commercially available crown ether such as 18-crown-6 ether in the adhesive composition of Tse et al. depending on the particular functional groups and base polymer used, and the curing properties, adhesive, and processing characteristics required by a given application.

Applicant's invention as claimed is a composition for bonding to a fluoropolymer. The bonding composition contains a mixture of a melt-processable, substantially non-fluorinated polymer, base, and crown ether. The substantially non-fluorinated polymer, base, and crown ether are typically mixed in a mixing vessel using sufficient heat to melt the substantially non-fluorinated polymer. The base and crown ether are melt blended into the polymer; that is, become a part of or are incorporated into the polymer.

Tse et al. disclose adhesives containing a polymer wherein the polymer has an elastomeric backbone and thermoplastic macromonomer side chain grafts. The macromonomers are grafted onto the backbone in a nucleophilic substitution reaction (column 12, lines 64-68). Tse et al. mention the use of a phase transfer catalyst to catalyze the graft of

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the macromonomer to the backbone. Tse et al. disclose that a phase transfer catalyst is useful in the situation where different solvents or reaction mediums are used for the backbone polymer and the macromonomer (nucleophile) (column 26, lines 24-29; column 28, lines 8-13) or in the situation where the backbone polymer/macromonomer are dissolved in one phase and a simple nucleophilic reagent is dissolved in another (column 29, line 63 - column 30, line 8). In these cases, a phase transfer catalysts is used to promote the nucleophilic reaction at the interface of the two phases. Tse et al. also disclose that phase transfer catalysts are sometimes beneficial in speeding up a one phase solution reaction (column 30, lines 16-19). Thus, the phase transfer catalyst is used as a "catalyst" in the classical sense; that is, the phase transfer catalyst is not incorporated into the polymeric composition but only used in solution to aid in the reaction. The solvents and soluble catalysts, for example crown ether, are removed when the grafted end product is isolated. Tse et al. no where suggest that a phase transfer agent may be used in a bulk reaction or suggest any reason or advantage to use a combination of base and crown ether in a bulk reaction. For at least these reasons, Applicant submits that the claimed invention is patentable over Tse et al. Accordingly, Applicant respectfully requests that the above rejection of claims 1-6 and 10 be withdrawn.

Claims 1-4, 7, and 10 were rejected under 35 U.S.C. 103(a) as being unpatentable over Kubillus et al. (U.S. Patent No. 5,169,979). Kubillus et al. disclose curable polyester compositions containing catalysts.

Claims 1-4 and 7 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Kraft et al. (U.S. Patent No. 4,542,192). Kraft et al. disclose curable compositions containing polyesters and epoxy compounds and utilize catalysts for crosslinking.

Applicant has amended claim 1 so to exclude polyester resins. Thus, for at least this reason, Kubillus et al. or Kraft et al. do not teach or suggest the claimed invention. Accordingly, Applicant respectfully requests that the above rejections be withdrawn.

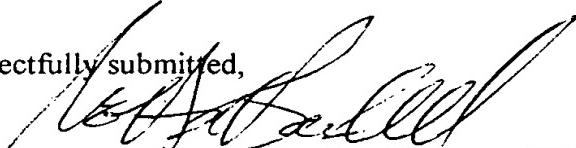
In view of the above amendments and remarks, Applicant respectfully requests reconsideration of the claims and submit that the claims are in condition for allowance and request formal notice thereof. Examiner is invited to telephone the undersigned at the

number below if Examiner believes that such a call would facilitate prosecution and allowance of the application.

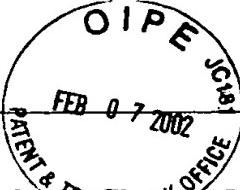
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Respectfully submitted,

By


Scott A. Bardell

Office of Intellectual Property Counsel
3M Innovative Properties Company
P.O. Box 33427
St. Paul, Minnesota 55133-3427
Facsimile: (651) 736-3833



Version With Markings to Show Changes Made

1. (Amended) A bonding composition comprising a mixture of:
 - a) a melt-processable, substantially non-fluorinated polymer selected from the group consisting of functionalized polyolefins, polyamides, polyimides, polyurethanes, and mixtures thereof; and
 - b) a catalyst system comprising base and crown ether.

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